*Serial No. 10/869,648 (Atty. Docket No. NJIT 003)*
*Amendment dated July 21, 2005*
*Reply of Office Action of April 21, 2005*

## REMARKS

This response is a full and complete response to the non-final Office Action mailed April 21, 2005. In the present Office Action, the Examiner has noted that claims 1-26 are pending, that claims 2-4, 6-8, 13, 14, 16 and 17 are objected to as being dependent from a rejected base claim and, if amended into independent form, represent allowable subject matter, that claims 1, 5, 9-12, 15, and 18-26 stand rejected under 35 U.S.C. §103, and that the drawings filed on May 4, 2001 are accepted.

By this response, Applicants have submitted the following remarks to distinguish Applicants' claimed invention from the cited and applied prior art.

In view of the following remarks, Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103. Applicants believe that this application is now in condition for allowance.

## REJECTIONS UNDER 35 U.S.C. §103

### Claim 1, 10, 15 and 18-20

Claim 1, 10, 15 and 18-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,873,630 issued to Muller et al. (hereinafter "Muller"). This rejection is respectfully traversed.

As a point of clarification, Applicants call for "a plurality of data frames **temporally** separated by respective inter-packet gaps (IPGs)" (claim 1) and "a **temporal** region following each transmitted data frame" (claim 10). But the Examiner has stated that Muller does not teach "transmitting **temporary** frames" and that it would be obvious to require "methods of separating frames temporarily' and "to separate frames **temporarily**" on page 4 of the present Office Action. Clearly, the words used in the Office Action do not convey the same meaning as the words "temporally" and "temporal" used in the claims. As a result, this part of the rejection is misplaced and inapposite.

In claim 1, Applicants call for "a plurality of data frames **temporally** separated by respective inter-packet gaps (IPGs)". In claim 10, Applicants call for "inserting, into a temporal region following each transmitted data frame, a synchronization pattern suitable for delineating said data frame." In claim 15, Applicants call for "transmitting ...

said T-FLAG comprising a respective relatively long synchronization pattern suitable for delineating said data frame." Claims 18-19 depend directly on claim 15. In claim 20, Applicants call for "determining data frame delineation points within a received data stream by detecting the presence of a synchronization pattern within said data stream, said synchronization pattern being positioned within inter-packet gaps (IPGs)." Throughout all these claims, Applicants make it clear that there is a synchronization pattern located in the region between consecutive data frames and that the synchronization pattern is used to delineate the data frame.

Muller inserts a variable idle code after a mini-frame of data. This idle code is used by Muller to assist in the reconstruction of the actual data frame from each group of mini-frames. *See Muller at col. 10, lines 54-65.* The idle codes are used collectively for synchronization to make sure that the mini-frames are in the same grouping of mini-frames in the frame sequence. *See Muller at col. 12, lines 14-20.* Muller also states that the idle codes are used for error control when the idle codes in a particular group do not match. But nowhere does Muller teach, show or suggest that the idle codes should be used for mini-frame delineation. Instead Muller teaches that the SPD and EFD delimiters are used to delineate the mini-frame. *See Muller at col. 10, line 6 through col. 11, line 16.* These delimiters are not the synchronization pattern.

In light of the remarks above, it is submitted that Muller does not teach, show, or suggest either the particular methods defined by Applicants in claims 1, 10, and 20 or the protocol defined by Applicants in claim 10. Hence, it is submitted that Applicants' claimed invention defined in claims 1, 10, 15 and 20 would not have been obvious to a person skilled in the art upon a reading of the Muller reference at the time the claimed invention was made. Therefore, Applicants believe that claims 1, 10, 15 and 20 are allowable under 35 U.S.C. §103.

Since claims 18 and 19 depend directly from claim 15 and in light of the remarks above with respect to claim 15, it is submitted that Applicants' claimed invention defined in claims 18 and 19 would not have been obvious to a person skilled in the art upon a reading of the Muller reference at the time the claimed invention was made. Therefore, Applicants believe that claims 18 and 19, dependent from claim 15, are allowable under 35 U.S.C. §103.

## Claim 5

Claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Muller. This rejection is respectfully traversed.

Claim 5 depends directly from claim 1, which has been distinguished from Muller in the section immediately above. Claim 5 calls for a CRC element positioned within each IPG wherein the CRC element is generated from the data frame adjacent said IPG. That is, the CRC element in the IPG is already calculated and transmitted with the data frames.

Muller does discuss CRC in the section of the reference identified in the Office Action. Muller states that CRC computation can be done at the MAC level after the frame has been reassembled. This is a standard implementation for the CRC. This is not the same as the CRC implementation by Applicants.

Applicants calculate a CRC for a particular frame and the insert that CRC element in the IPG adjacent to that data frame. Applicants' CRC element can be compared at the receiver to the CRC calculated at the receiver for the received data frame. Thus Applicants have two CRCs: one received in the IPG and one computed on the received data frame.

Muller's IPG adjacent to a data mini-frame includes no CRC element. Muller only calculates a CRC. Muller does not receive a CRC. Additionally Muller's calculation is performed on the assembled data frame not even on the mini-frame. Thus, Muller does not teach, show, or suggest Applicants' unique limitation in claim 5 concerning the CRC element.

In light of the distinguishing remarks concerning claim 1 and the remarks presented above, it is submitted that Applicants' claimed invention defined in claim 5 would not have been obvious to a person skilled in the art upon a reading of the Muller reference at the time the claimed invention was made. Therefore, Applicants believe that claim 5 is allowable under 35 U.S.C. §103.

## Claims 11, 12, and 23

Claims 11, 12, and 23 rejected under 35 U.S.C. §103(a) as being unpatentable over Muller. This rejection is respectfully traversed.

Claims 11 and 12 depend directly from claim 10, which was distinguished from Muller above. Claim 11, dependent from claim 10, introduces the limitation of "inserting, into said temporal region following each transmitted data frame, a cyclical redundancy check (CRC) data element generated using the contents of said data frame." Claim 12, dependent from claim 11, introduces the limitation of "inserting, into said temporal region following each transmitted data frame, a length indicative data element generated according to the contents of a respective data frame." Claim 23, dependent from claim 20, introduces the limitations of "identifying a cyclical redundancy check (CRC) data element proximate said T-FLAG and within a respective IPG; and utilizing said detected CRC and a CRC generated using a corresponding formed data frame to determine whether said formed data frame has been corrupted."

Claim 10 from which these rejected claims depend has already been distinguished from Muller.

With respect to claims 11 and 23, Muller does discuss CRC in the section of the reference identified in the Office Action. Muller states that CRC computation can be done at the MAC level after the frame has been reassembled. This is a standard implementation for the CRC. This is not the same as the CRC implementation by Applicants.

Applicants generate a CRC for a particular frame and the insert that CRC element in the IPG adjacent to that data frame. Applicants' CRC element can be compared at the receiver to the CRC calculated at the receiver for the received data frame. Thus Applicant has two CRCs: one received in the IPG and one computed on the received data frame.

Muller's IPG adjacent to a data mini-frame includes no CRC element. Muller only calculates a CRC. Muller does not receive a CRC. Additionally Muller's calculation is performed on the assembled data frame not even on the mini-frame. Thus, Muller does not teach, show, or suggest Applicants' unique limitations in claims 11 and 23 concerning the CRC element.

With respect to claim 12, Muller does not teach, show, or even remotely suggest the computation and insertion of a **length indicative element** as defined and claimed by Applicants. Moreover, in the Office Action, there is no mention about where Muller

supposedly teaches the insertion of a length indicative element so that the Office Action fails to make a prima facie case of obviousness for claim 12. Finally, on page 6 of the Office Action, the Examiner states that "[t]he claimed invention comprises a length indicative data element [sic] positioned within said IPG and each length indicative data element storing a length parameter associated with a data frame adjacent said IPG (as in claim 2) which the prior art do not teach or render obvious."

In light of the remarks above, it is submitted that the Office Action does not make a prima facie case of obviousness for claim 12 and it is further submitted that the Examiner agrees that Muller fails to teach, show, or suggest the particular protocol defined by Applicants in claims 11, 12, and 23. Hence, it is submitted that Applicants' claimed invention defined in claims 11, 12, and 23 would not have been obvious to a person skilled in the art upon a reading of Muller at the time the claimed invention was made. Therefore, Applicants believe that claims 11, 12, and 23 are allowable under 35 U.S.C. §103.

### Claims 21 and 22

Claims 21 and 22 rejected under 35 U.S.C. §103(a) as being unpatentable over Muller. This rejection is respectfully traversed.

Claim 21 depends directly from claim 20, which was distinguished from Muller above, and claim 22 depends directly from claim 21. The distinguishing remarks made with respect to claim 20 will not be repeated herein for brevity sake but are nonetheless relied on completely.

In addition to the distinction between claim 20 and Muller, it should be understood that Muller does not teach show or suggest the limitation in claim 21. Moreover, the Examiner fails to make a prima facie case of obviousness by showing where Muller teaches, shows or suggest "said detection of said synchronization pattern comprises a correlation of data within said data stream to at least an n-bit difference between said synchronization pattern and said reference synchronization pattern."

In addition to the distinction between claim 20 and Muller, it should be understood that Muller does not teach show or suggest the limitation in claim 22. Moreover, the Examiner fails to make a prima facie case of obviousness by showing

where Muller teaches, shows or suggest "discarding all data pertaining to a data frame being formed in response to the detection of an error flag within said input data stream."

In light of the remarks above, it is submitted that the Office Action does not make a prima facie case of obviousness for claims 21 and 22 and it is further submitted that Muller fails to teach, show, or suggest the particular method defined by Applicants in claims 21 and 22. Hence, it is submitted that Applicants' claimed invention defined in claims 21 and 22 would not have been obvious to a person skilled in the art upon a reading of Muller at the time the claimed invention was made. Therefore, Applicants believe that claims 21 and 22 are allowable under 35 U.S.C. §103.

### Claims 24-26

Claims 24-26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Muller. This rejection is respectfully traversed.

Claim 24-26 depend directly from claim 20, which was distinguished from Muller above. The distinguishing remarks made with respect to claim 20 will not be repeated herein for brevity sake but are nonetheless relied on completely.

In addition to the distinction between claim 20 and Muller, it should be understood that Muller does not teach show or suggest the limitation in claim 24. Moreover, the Examiner fails to make a prima facie case of obviousness by showing where Muller teaches, shows or suggest "detecting a length indicative data element proximate said T-FLAG and within a respective IPG; and determining whether said received data frame has a length proximate the length indicated by said length detected length indicative data element." On page 6 of the Office Action, the Examiner states that "[t]he claimed invention comprises a length indicative data element [sic] positioned within said IPG and each length indicative data element storing a length parameter associated with a data frame adjacent said IPG (as in claim 2) which the prior art do not teach or render obvious."

In addition to the distinction between claim 20 and Muller, it should be understood that Muller does not teach show or suggest the limitation in claim 25. Moreover, the Examiner fails to make a prima facie case of obviousness by showing where Muller teaches, shows or suggest "detecting a pointer within said data stream

proximate said T-FLAG, said pointer identifying a start position of a next data frame; and determining whether a gap within said data stream exists indicative of the corruption of a T-FLAG prior to the reception of said data stream."

  In light of the remarks above and the earlier remarks made with respect to the base claim 20, it is submitted that the Office Action does not make a prima facie case of obviousness for claims 24, 25, and 26 and it is further submitted that Muller fails to teach, show, or suggest the particular method defined by Applicants in claims 24, 25, and 26. Hence, it is submitted that Applicants' claimed invention defined in claims 24, 25, and 26 would not have been obvious to a person skilled in the art upon a reading of Muller at the time the claimed invention was made. Therefore, Applicants believe that claims 24, 25, and 26 are allowable under 35 U.S.C. §103.

## CITATION OF ADDITIONAL REFERENCES

  The Examiner has cited, but not applied, U.S. Patent 6,570,890 issued to Keenan et al. listed on the Notice of References Cited accompanying the present Office Action. This reference has been reviewed by Applicant's representative and is believed to be no more than cumulative over the references already applied to the claims. Since this reference was not applied against the claims, it is assumed that the Examiner concurs in this viewpoint.

  In light of the review of this reference by Applicant's representative, it is believed that Applicant's claimed invention would not have been obvious to one having ordinary skill in the art at the time Applicant's invention was made upon a reading of cited reference separately or in combination with the Keenan et al. patent.

## ALLOWABLE SUBJECT MATTER

  The Examiner has indicated that claims 2-4, 6-8, 13, 14, 16 and 17 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. The reasons for allowability are also presented by the Examiner. Applicants thank the Examiner for indicating this allowable subject matter. But in light of the remarks presented above with respect to the rejected claims from which claims 2-4, 6-8, 13, 14, 16 and 17 depend, it is submitted that these claims are

also allowable without a need to write them in independent form at this time.
Applicants therefore reserve the right to rewrite these claims into independent form if
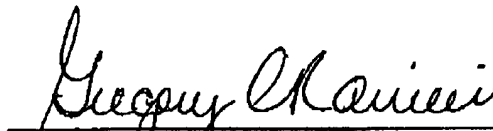conditions so require, later in the prosecution.

### CONCLUSION

Thus, Applicants submit that none of the claims presently in the application are
obvious under the respective provisions of 35 U.S.C. §103. Accordingly, both
reconsideration of this application and allowance are respectfully solicited.

If, however, the Examiner believes that there are any unresolved issues requiring
adverse final action in any of the claims now pending in the application, it is requested
that the Examiner telephone Gregory C Ranieri, Esq. at (732) 280-1390 so that
appropriate arrangements can be made for resolving such issues as expeditiously as
possible.

Respectfully submitted,

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